

V.E. No. 1

VALUE ENGINEERING CHANGE PROPOSAL
MISSOURI DEPARTMENT OF TRANSPORTATION

☒ Conceptual Proposal ☐ Final Proposal Date 07/17/09

Contract ID 090626-601 Job No. J6I1830B

County St. Louis I-270 Original Bid Cost \$34,815,241.53

Contractor Fred Weber, Inc. By Brian J. Carlson

Designed By Fred Weber, Inc. Phone (314) 792-6784

VECP# 09-64 (to be completed by C.O.) VECP ☒ or PDVECP ☐

1. Description of existing requirements and proposed change(s). Advantages/Disadvantages

Existing: The preliminary plans require construction of a temporary bridge to handle SB I-270 traffic while the existing structure is demolished and a new bridge over Dorsett Road is re-built half at a time in order to satisfy the proposed Diverging Diamond Interchange (DDI) configuration. It was mentioned that leaving the existing bridge over Dorsett Road in place was initially considered especially since rehabilitation work was recently completed in 2004, but the DDI as it was designed would not work beneath the existing structure. (Continued on attached page)

2. Estimate of reduction in construction costs. \$3,000,000.00

3. Prediction of any effects the proposed change(s) will have on other department costs, such as maintenance and operations.

MoDOT recently spent money for the rehabilitation of this bridge in 2004. Therefore, significant maintenance repairs should not be an issue for some time. However, FWI is receptive to making some additional repairs to help extend the life of the bridge, if necessary. Aesthetic improvements can be designed with a look similar to the originally proposed A7659 bridge.

4. Anticipated date for submittal of detailed change(s) of items required by Section 104.6 of the Specifications.

07/20/09

(date)

5. Deadline for issuing a change order to obtain maximum cost reduction, noting the effect of contract completion time or delivery schedule.

08/07/09

(date)

Need to know in order to avoid material price increases and avoid impacting the construction schedule.

(effect)

6. Dates of any previous or concurrent submission of the same proposal.

N/A

(date and/or dates)

JUL 17 2009

Additional Comments:

By utilizing the existing bridge structure, the investment from the recent rehabilitation will not be wasted and the \$3,000,000.00 savings from this VEP can be utilized on other maintenance or construction projects. Additionally, "green credits" should be considered for utilization of the existing bridge when total replacement is not absolutely necessary. (Continued on attached page)

**** Portion Below This Line To Be Filled Out by MoDOT ****

Comments:

Submitted By Resident Engineer

Date

Comments:

☐ **Approval
Recommended**

☐ **Rejection
Recommended**

District Engineer

Date

Comments:

☐ **Approval
Recommended**

☐ **Rejection
Recommended**

Federal Highway Administration
Required for FHWA Full Oversight Projects

Date

Comments:

☐ **Approval**

☐ **Rejection**

State Construction and Materials Engineer

Date

Distribution: Resident Engineer, Project Manager, District Construction & Materials Engineer, State Construction & Materials Engineer, FHWA
Value Engineering Administrator – MoDOT, P. O. Box 270, Jefferson City, MO 65102

Additional Comments:

**** Portion Below This Line To Be Filled Out by MoDOT ****

Comments:

REJECTED: This concept was considered during scoping and again by a Value Engineering study during design. It was rejected both times for numerous reasons, including reduced intersection angles, reduced shoulder widths and a reduction in traffic performance. As a courtesy to the contractor, this concept was floated once more with the funding partners rather than facing immediate rejection. The partners unanimously rejected the concept.

Matthew N. Jansson
Submitted By Resident Engineer

08-11-09

Date

Comments:

AS NOTED ABOVE.

☐ Approval
Recommended

☒ Rejection
Recommended

Ed Davis

District Engineer

8-14-09

Date

Comments:

☐ Approval
Recommended

☐ Rejection
Recommended

N/A

Federal Highway Administration
Required for FHWA Full Oversight Projects

Date

Comments:

I agree that this VE should be rejected on the basis of idea being previously considered and found unacceptable, and because other partners in the project agree that this VE is not appropriate for this project.
Denis Glascock 8/17/2009

☐ Approval

☒ Rejection

David D. Glascock

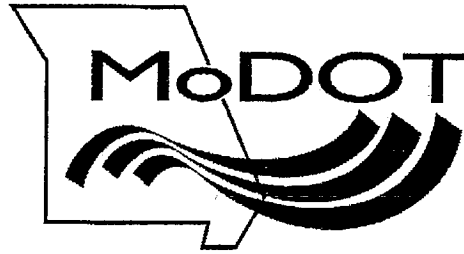
State Construction and Materials Engineer

8-18-09

Date

Distribution: Resident Engineer, Project Manager, District Construction & Materials Engineer, State Construction & Materials Engineer, FHWA Value Engineering Administrator - MoDOT, P. O. Box 270, Jefferson City, MO 65102

Missouri
Department
of Transportation



I-270, Dorsett-Page Team
2620 Adie Road
Maryland Heights, MO
63043
(314) 877-2770
Fax (314) 877-2772
Toll free 1-888 ASK MoDOT

Lee Hillner, P.E., Project Director
Niall Jansson, P.E., Deputy Director

To: Matt Budd-cm6
CC: Travis Koestner-cm
Jim Smith-de
From: Niall Jansson *NJ*
Deputy Director / RE – Dorsett/Page
Date: August 11, 2009
Subject: Rejection Recommendation – VE No. 1 (Dorsett)
Job No.: J6I1830B
Route I-270 – St. Louis County
Contract ID: 090626-601

Attached please find a copy of Form C-104, submitted by Fred Weber Inc., on the above noted project. The proposal, henceforth known as Value Engineering Proposal No. 1, was to utilize the existing bridge carrying I-270 traffic over Dorsett Road rather than replace it. This is not a new concept. It was considered during the original scoping but rejected for numerous reasons. If the existing bridge were used, the diverging angles would fall below the 40-degree minimum MoDOT committed to FHWA. Also, shoulder width would be lost. Incorporating the existing pier columns into the travelled way and lane configuration introduces clear zone hazards and sight distance concerns. Finally, there was a reduction in overall traffic performance.

This concept was subsequently revisited during a Design Value Engineering Study and again rejected for the same reasons.

The third time this idea came up was when Fred Weber submitted it as VE No. 1. Since MoDOT has three other funding partners with significant stakes in the project, we agreed to poll the partners to see if there was interest in revisiting the engineering concerns a third time. The funding partners unanimously rejected the VE Proposal favoring the original design.

We strongly recommend that Value Engineering Concept No. 1 be rejected. If you have any questions, please call me at (314) 877-2770.

"Our mission is to provide a world-class transportation experience that delights our customers and promotes a prosperous Missouri."

11911 Dorsett Road
Maryland Heights, MO 63043-2597
t: 314.291.6550 f: 314.291.7457
www.marylandheights.com

City of
MARYLAND HEIGHTS



August 7, 2009

Missouri Department of Transportation
Attn: Mr. Lee Hillner, P.E.
1590 Woodlake Drive
Chesterfield, MO 63017-5712

Re: I-270 @ Dorsett Interchange Project
Value Engineering Proposal dated 7/24/09
Use of Existing Bridge in Place and Lane Modifications

Dear Lee:

We at the City of Maryland Heights have appreciated the opportunity to be involved in the review of this value engineering proposal. While we realize acceptance of this proposal would create a significant cost savings for the project, we feel it is also important to weigh the value of savings versus the safety, functionality, and overall integrity of the project.

Concerns in regards to use of the existing bridge in place with the associated traffic barrier modifications along Dorsett Road and the structural integrity over time of using the existing bridge in place opposed to a complete reconstruction were factors that played a major role in our consideration of this proposal.

While we are always looking for ways to improve our projects, we will be unable to support this value engineering proposal at this time.

Should you have any questions, please do not hesitate to contact me at 314-738-2257 or mmcgrath@marylandheights.com.

Sincerely,

Matt McGrath, P.E.
Project Manager

Cc: Bryan Pearl, P.E. – Director of Public Works
Cliff Baber, P.E. – Construction Manager

ST. LOUIS CO

VE #1.

Garland L Hillner /D6/MODOT
08/11/2009 08:54 AM

To Matthew N Jansson/D6/MODOT@MODOT
cc
bcc
Subject Fw: Log #62065 270 @ Dorsett - Value Engineering
Submittal (County Response)

----- Forwarded by Garland L Hillner/D6/MODOT on 08/11/2009 08:53 AM -----



"Heck, Gus"
<GHeck@stlouisco.com>
08/03/2009 03:38 PM

To "Lee.Hillner@modot.mo.gov" <Lee.Hillner@modot.mo.gov>
cc "Bardot, Michael" <MBardot@stlouisco.com>, "Leon
Streeter, Stephanie" <SLeonStreeter@stlouisco.com>,
"Hodges, Sheryl" <SHodges@stlouisco.com>, "Halter, Scott"
<SHalter@stlouisco.com>, "Dam, Erik"
<EDam@stlouisco.com>
Subject FW: Log #62065 270 @ Dorsett - Value Engineering
Submittal

Lee

Our Department has reviewed the contractor's Value Engineering proposal and at this time, we cannot support it because we are concerned that leaving the existing bridge in place will degrade both the level of service and safety at the interchange. While our Department is always interested in finding cost saving opportunities, we also value safety, mobility and performance as well. If the contractor has information that can prove level of service and safety are not compromised by the alternative, the Department would consider the additional information. Until such time, we do not support the Value Engineering proposal.

If you have any questions please feel free to call me at 314-615-8563 or Gheck@stlouisco.com.

August (Gus) Heck, Jr, P.E.
North and West Area Engineer
Saint Louis County Department of Highways and Traffic
Planning Division
121 South Meramec Avenue, 8th Floor
Saint Louis, Missouri 63105
314-615-8563 Fax 314-615-8156

EDWARD JONES
VE #1

Garland L Hillner /D6/MODOT
08/11/2009 08:53 AM

To: Matthew N Jansson/D6/MODOT@MODOT
cc
bcc

Subject: Fw: 270 @ Dorsett - Value Engineering Submittal (EDJ Response)

----- Forwarded by Garland L Hillner/D6/MODOT on 08/11/2009 08:53 AM -----



"Foltz Gay, Jodi L"
<jodi.gay@edwardjones.com>

To: <Lee.Hillner@modot.mo.gov>

08/04/2009 01:04 PM

cc

Subject: FW: 270 @ Dorsett - Value Engineering Submittal

Lee,
Based upon our conversation, I concur with my initial thoughts - I prefer not to accept a VE that could reduce traffic capacity - thanks.
Jodi

In addition, to confirm, John Nations will no longer be representing Edward Jones during the course of the project implementation. We will reserve his participation to appropriate legal matters.

If you are not the intended recipient of this message (including attachments), or if you have received this message in error, immediately notify us and delete it and any attachments. If you no longer wish to receive e-mail from Edward Jones, please send this request to messages@edwardjones.com. You must include the e-mail address that you wish not to receive e-mail communications. For important additional information related to this e-mail, visit www.edwardjones.com/US_email_disclosure

-----Original Message-----

From: Foltz Gay, Jodi L
Sent: Monday, July 27, 2009 5:53 PM
To: 'Lee.Hillner@modot.mo.gov'
Cc: mmcgrath@MarylandHeights.com
Subject: RE: 270 @ Dorsett - Value Engineering Submittal

Lee,
Perhaps we could arrange a quick conference call? While I support a cost reduction, I'm concerned about accepting a VE that could reduce traffic performance - especially with consideration to our long term plans. Please let me know when you would be available for 15 minutes - thanks.
Jodi

-----Original Message-----

From: Lee.Hillner@modot.mo.gov [<mailto:Lee.Hillner@modot.mo.gov>]
Sent: Friday, July 24, 2009 1:35 PM
To: mmcgrath@MarylandHeights.com; jnations@ArmstrongTeasdale.com;

VALUE ENGINEERING CHECK SHEET

TYPE OF WORK

(Check one that applies)

- Bridge/Structure/Footings
- ☐ Drainage Structures (RCP, RCB, CMP's, ect.)
- ☐ TCP/MOT
- ☐ Paving (PCCP, ect.)
- ☐ Grading/MSE Walls
- ☐ Signal/Lighting/ITS
- ☐ Misc. - Base eliminated

SUMMARY OF PROPOSAL

(If needed, condense summary to a couple of lines)

This VE involves the use and modification of an existing bridge where the plans call for replacement of the structure.

SCANNING OF DOCUMENT

If the proposal is large, please mark or make note, which pages need to be scanned into the database. If there are special instructions, make note of them here.